

CIRCUIT AND METHOD FOR VOLTAGE REGULATION
IN A SEMICONDUCTOR DEVICE

Abstract of the Disclosure

As part of a memory array, a circuit is provided for altering the drive applied to an access transistor that regulates electrical communication within the memory array. In one embodiment, the circuit is used to alter the drive applied to a sense amp's voltage-pulling transistor, thereby allowing modification of the voltage-pulling rate for components of the sense amp. A sample of test data is written to the memory array and read several times at varying drive rates in order to determine the sense amp's ability to accommodate external circuitry. In another embodiment, the circuit is used to alter the drive applied to a bleeder device that regulates communication between the digit lines of the memory array and its cell plate. Slowing said communication allows defects within the memory array to have a more pronounced effect and hence increases the chances of finding such defects during testing. The circuit is configured to accept and apply a plurality of voltages, either through a contact pad or from a series of discrete voltage sources coupled to the circuit.